

**Abstract**

The invention relates to a gas chromatograph for the analysis of gas samples. It has a feed arrangement for feeding the sample, an open tubular capillary column for separating the components of the sample, temperature control means for controlling the temperature of the column, and a detector for detecting the separated components of the sample. The efficiency has been improved and a convenient hand-held version has been made possible by constructing the column of a bundle of open tubular capillaries having a gas permeable wall comprising a polymer membrane. The invention also relates to the use of such a column together with a detector for identifying gaseous samples.